July 1992

approach

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Blew Hawaii

As we made our turn to the BRC and descended out of 2,000 feet, we were accelerating for the fly-by when the radome imploded!

By Lt. Tom Keck

It was mostly sunny with scattered cumulus clouds, the kind that real aviators like to kill. The seas were calm and all we three nuggets with the skipper had to do was launch and recover. We were just finishing our first cruise. The skipper liked our plan of shooting a practice TACAN into MCAS Kaneohe. It would be our first after six months at sea, and it promised to be scenic as well as instructional.

Our brief was thorough, especially with regard to the comm drill, which would be involved in getting from the ship to the friendly shores of Hawaii. Since I was in front, I would be in charge of making sure we made it through the friendly skies without offending anyone.

Man-up and launch went without a hitch. We noted a gripe in the book about a history of noises, described as chugs or thumps; they usually cropped up in the 450-knot range, and sure enough, when we got there we heard something. Neither the pilot nor the skipper thought it was an engine chug, but they didn't know what else it could be. We pressed on,

and soon I was busy talking to the local controllers.

We managed to avoid the buildups and the noise-sensitive areas, and soon enough were on final to Kaneohe. Taking a low approach since we were still heavy, I thrust myself into the comm nightmare again.

I let the pilot and the skipper worry about the mysterious thump (which we heard again), and I tried to work out whom I was talking to, whom I was supposed to be talking to, and whether or not either would let me do what I wanted, which was zorch back to the ship to make the recovery.

I finally was able to make my desires known, and got clearance as requested. We never were able to figure out what was causing that darn thump. Whatever it was, it was transitional around the 400-450 KIAS regime, and was no excuse to not enliven the day of those on the ship with throaty roar of our P-408s.

We held for a couple of minutes outside of 10 miles while the boss launched the helo, then we called again for a fly-by.

"Boss, 620 for the fly-by."

"Roger, 620, cleared for the fly-by, port side, no lower than cherubs two, subsonic."

"Roger, Boss, subsonic, 620." That Boss, what a kidder!

As we made our turn to the BRC and descended out of 2,000 feet, we were accelerating for the fly-by when the radome imploded! I smelled smoke immediately.

My first thought was that the engines were FODed and that we all would soon be hitting the silk. I looked over at the engine instruments, while at the same time getting in a little better position for ejection. My pilot looked over at me and saw that I was ready to get out.

"It's OK," he said. "I've got it!" (Read, "You better not eject me!")

I still thought there might be a fire, but there were no lights, and the motors and hydraulics were fine. I declared the emergency. I knew that it must have sounded pretty bad in the overhead stack, since only about 10 or 20 seconds had passed since we had been cleared for the fly-by.

"620, say the nature of your emergency!" demanded the Boss, who was pretty concerned. Only a few days before, the battle group had lost a helo and the crew had only enough time to declare an emergency before they were lost at sea.

"620's radome imploded, Boss, both engines are fine, but we'll need a pull forward," I replied with as much sang-froid as I could muster.

Pretty soon DCAG was on our wing in one of the tankers looking us over.

"Everything looks down and dirty from here; but that's the funniest looking nose I ever saw," he reported (and he's an A-6 bubba, so that was saying something). Inside the airplane I had the PCL out and we talked about the checklist. We decided not to climb for controllability checks because of the possibly FODed motors. We cross-checked our airspeed against the deputy's, and came around for an OK 3-wire.

What did I learn from all of this? Just as it's important to know when to go, it's important to know when to stay. My first impressions after the radome imploded were the loud bang, lots of stuff coming off the nose, cracked windscreen, strange smell, high speed, low altitude descending, engines FODed or on fire—bad. Before reaching for the handle, I took a couple of seconds to evaluate the situation. I realized that we were OK.

Our crew coordination worked well. My pilot saying that everything was OK confirmed my impression, but he also cleared the backseaters to pry their knuckles off of the yellow and black. Then we talked about what we had and what we were going to do.

Our motors were badly FODed, but they ran like nothing had happened to them. We wrote off the radome and the radar, and my windscreen will probably make somebody a nice coffee table. We never did find out what that annoying thump was, and our Prowler has since moved on to other mystery gripes. ➤

Lt. Keck is an ECMO with VAQ-138.

Dawn Patrol Again!

By Lt. Jeff Tappan

I woke at 0408, just as I had for the last four weeks in a row. I lay there waiting until the cursed alarm rang at 0410. I aimed a shoe at the alarm clock with the determination and accuracy of a marksman; I missed, of course. After judging my throw to be low and outside, I decided to clean up the broken lamp when I got home. I bounded across the floor littered with lamp pieces and expertly secured the loud alarm clock. Man, was I tired.

I dressed in the dark so as not to wake the wife. Socks, shorts, shirt, flight suit, boots and tags, all there. The next part of the ritual was the duty dog-walk. After stepping on something that felt like a soft wool sock, I realized that the walk would not be necessary. You know it's early when even the dog won't get up to go outside. Man, was I tired.

Being "the cup is half full" type of guy, I cheerfully continued on with my morning ritual. I decided to skip breakfast, since I had to clean my flight boots and put the final touches on the presentation for tonight's class. After saying goodby to the wife, I heard her mumble something about looking terrible and not forgetting to shave. Man, was I tired.

Joining the interstate, I calculated my ETA to the squadron and determined I would need to increase my speed by eight mph to enable me to make my brief time. I spotted the cop car behind the billboard, three-quarters of a mile and closing. He would, of course, be sleeping just as he had been every morning for the last three-and-a-half weeks. Feeling brave, I accelerated slightly.

Soon, after failing to convince the state trooper that I was on a mission of utmost importance—national security and all—I signed my ticket and continued on. Man, was I tired.

I was 12 minutes late for the brief. I explained to the SDO that I was wrongfully accosted by the local militia and fully intended to press charges after completing my three flights.

I glanced at the schedules board and saw I had two FAM hops and a tactical hop. It was going to be a very long day. Man, was I tired.

Somewhere between the FAM brief and the NATOPS brief, I realized I had two different color socks on. Out of the corner of my eye, I could tell from the smirk on my student's face that he had also noticed my choice of socks. I looked him in the eye and said, "I go by thickness not color".

I then did what any self-respecting flight instructor would do— I asked five or six grueling questions about NATOPS systems to put him on the defensive. I just hoped he hadn't noticed I had forgotten to shave. Man, was I tired.

After a three-hour weather delay, the first FAM flight went off without a hitch; the guy was a super star. As it is usually the case, bad usually followed good, and the second FAM flight was painful. The temperature peaked at 109 degrees and the air conditioner was on its last legs. After the ninth normal approach, I set the aircraft down and pulled my visor up to see how the student was holding up under the heat.

"This guy looks terrible," I thought. I started to say something, when I realized I was looking at my reflection in his visor. "I had better get some sleep this weekend," I thought again.

I briefed the third flight of the day in the aircraft. The temperature was a cool 111 degrees. The student looked fresh and ready to fly. After we finished the NATOPS brief, I tallied up my hours so as not to exceed the max flight time for the month: 98.5. Plenty of room left, no

problem. I checked the clock for crew day. Just enough time to get back, finish the flight schedule and head off to my night class. Man, was I tired.

We taxied to the runway, took off, and headed for our operating area. Tactical hops are easier than FAM flights and I started to think about my presentation for my night class. Then, the student had the audacity to ask me a question right in the middle of my recital.

"So, what did you fly in the fleet, sir?" What nerve, sounds like a below-average in headwork to me. I shook my head and then realized that I did not recall the takeoff clearance or even what runway we had used. I was more than tired, I was outright exhausted.

I was deciding whether to continue or cancel the flight when the student asked, "Are you OK? You don't look so hot." Again, I did what any self-respecting flight instructor would do. I replied, "I'm doing better than you. Check your altitude and airspeed, and get the ball in the cockpit."

Next, I did the only sensible thing I had done all day. I took the controls, turned around and called it a day. I knew that I would take a barrage of verbal abuse from my peers that would make the Battle of the Bulge look like a snowball fight. I conjured up a story about seeing a twister rip my house from its foundation and that I needed to go home and rescue my dog. Hey, it could happen.

Somewhere between the bright lights, ruthless interrogation and the bamboo shoots under the finger nails, I broke down. I admitted that I canceled the flight because I was exhausted. I felt it was unsafe to continue the hop. I winced and expected to be tarred and feathered.

Yeah, I caught some abuse, but I was alive and kicking to complete the hop the next day.

If you fly 80-100 hours each month, attend night school, recently got married, or divorced, have a child, and are coaching Little League, something has to give. The true mark of a professional is not pushing to it until you drop, but knowing your limits. Look around you. Even if you're not having trouble toeing the line, your students, copilot or aircrew may be having problems keeping up. Everybody does not have the same stress threshold, nor are we all subjected to the same amount of stress.

Last but not least, never assume that the cop behind the billboard is sleeping. ◀

Lt. Tappan is a recent safety school graduate and flies with HSL-35.

ACT in Action

By LCdr. Kevin B. Lynch

So there I was, in the North Atlantic, loving life but hating my dry suit. The water temperature was 47 degrees F. No options, just curse and bear it.

We had just completed initial DLQs for my new copilot and were going for an HIFR qual. My copilot had done HIFRs previously. The Aegis cruiser was making 28 knots steaming in formation with three other small boys. Though true winds were from behind us, relative winds were 10 degrees to port at 15 knots. After a smooth hookup, my copilot positioned the helo for the fuel transfer. As he flew formation with the ship's flight deck, salt spray began to build up on the windscreen.

Although the hose was charged, I was sure we weren't taking on fuel because the fuel indicators were not climbing. I had the crewmen double-check the connection and asked the ship to verify they were pumping. Both crewmen confirmed the HIFR system was connected and pumping. I heard a loud, dull thump come from the after station. I asked the crewmen if the hose had separated from the Wiggins fitting because it sounded as if something had banged on the cabin floor. When the first crewman said no, I got my first inkling that something bad was about to happen.

I checked the gauges; everything was normal. Since we didn't really need the fuel and it appeared

as if we weren't getting any, I decided to call it quits. That's when it happened. It sounded like tree limbs going into a chipper. Having heard that sound before, I called for full power while pushing both speed selectors forward. There was a big torque split—I mean really big—like No. 1 engine working and No. 2 engine resting. I stopped my scan when I saw Nr at 90 percent.

I heard the crewman call for an emergency breakaway and noticed we were entering forward flight. My copilot was maintaining the helo in ground effect as he increased airspeed. I declared an emergency to the ship and asked them to stand by. I jumped on the controls momentarily, more to make me feel better than as a result of my copilot's performance. Realizing how well he was doing, I released the controls and became the cheering section. When he called out 80 knots, I told him to start a climb.

As we passed through 100 feet the popping stopped and No. 2 engine began to show signs of life again. The torque split had decreased to about 20 percent.

My copilot maintained single-engine airspeed and climbed to 500 feet. Since we were flying and the water was going in the right direction (away from us), the aviating and navigating were under control. It was time to communicate.

After quickly discussing our options with the crew, I told the ship of our intention to return to the CV. Feeling confident that we weren't going into the water, I decided to see if the engines could be matched up. I set them at 104 percent Nr and headed for mother.

Now some may think it unwise to make a 48-mile transit to a CV, passing up two small decks along the way, but losing an engine during a run-on landing to the CV seemed less dangerous than losing an engine on final to a small boy without a waveoff option. Both engines stayed on-line during the return trip and we landed.

If the water is cold, wear your dry suit. Seeing the water 15 feet below me with 90 percent Nr was uncomfortable, but being in 47-degree water would have been more so.

Fly the brief. Everyone responded as we had briefed, making it easier to cope with the emergency.

Keep the entire crew involved in the decision process. We all agreed on the decision to return to the CV, discussing different "what if" scenarios throughout the transit. This kept everyone from breathing a sigh of relief prematurely.

Nothing beats experience. Having had a similar emergency earlier in my career, I didn't wait for any secondaries. Immediately going to full power kept us airborne and out of the water.

Aircrew Coordination Training (ACT) works. As a former ACT instructor and disciple, I'm convinced the program's pluses well outweigh its minuses. When responsibilities are assigned and understood in the brief, people will perform superbly in both their normal duties and during emergencies. ◄

LCdr. Lynch flies H-3s with HS-9.

I Don't Know— What Do You Want To Do?

By Lt. Tom Hawley

We broke dip and headed back for a charlie on the destroyer that was hosting us for the day. I had been in my new squadron for only three weeks, and here I was chasing subs during Team Spirit '90. We had taken two crews in our SH-3H to work with the destroyer about 60 miles from the carrier.

The other crew had dropped us off on the ship and taken the first shift. A few hours later, we jumped in for the second exercise period.

After several hours of successful sub hunting and numerous simulated kills, we returned to the destroyer at our briefed overhead time for a quick gas-and-go, and to pick up the second crew.

Unfortunately, when we checked in at sundown, the ship told us that there would be a slight delay since they had just recovered their own helo and needed to stuff it in the hangar. No problem. We still had just over an hour of fuel left. After a few orbits, we realized that things were not going as smoothly as planned. The automatic blade-fold system on the ship's Seahawk was not working, so they needed to fold each blade manually. They said it would take about 15 minutes.

At this point, we found ourselves with a problem. With an hour left to splash, we could have easily waited another 15 to 30 minutes for a green deck. But the only other fueling platform available was the carrier, 45 minutes away. If we waited much longer, we wouldn't have enough fuel to return to the carrier if more problems developed on the destroyer.

A HIFR was out of the question with

their helo clobbering the deck. Looking at our fuel state, we knew we had to decide in the next five minutes.

After a couple of passes over the deck, we saw that only one of the SH-60's blades was folded; the crew was working on the second. We decided to play it safe and head back to the carrier.

As we left, I thought about the destroyer that was scheduled to detach the next day en route to another port with our crew onboard. As we continued back, recalculating our fuel, the carrier seemed to be getting farther away. I thought maybe we would have been better off waiting the 15 minutes over the destroyer, and having 45 minutes of reserve fuel than trying to stretch it to get back to mother.

As we refigured the fuel again, we seemed to be cutting it even closer. We declared an emergency and flew a max-range profile to the CV.

As we came in to land, I heard over the radio that the destroyer still didn't have a ready deck. We landed with a mere 175 pounds per side, but the decision to return home saved us from putting a fully functional aircraft in the water because we ran out of gas.

As it turned out, another of our helos had picked up the second crew before the destroyer detached from the battle group. I learned two old lessons that day. First, you can't fit two helicopters on the same destroyer deck. Second, if something goes wrong, you better have another plan—and the fuel to make it work.◀

Lt. Hawley flew SH-3H, and now flies the SH-60F with HS-4.

PHAN Sean D. Flynn

What Is the

Curtis E. Yankee

Limit?

"Starboard engine's oil pressure is low, Boss."

By Lt. Jeff Iovine

The possibility first occurred to me while we were still chained on elevator No. 1. Our Prowler was showing lower-than-normal oil pressure on the starboard engine while at idle. With a recent NATOPS change lowering the minimum-idle oil pressure from 35 psi to 30 psi, we were within limits at 32 psi. That didn't mean we had to be comfortable with it.

I casually mentioned to the other three crewmen that we shouldn't be surprised if we had to suspend on the cat for this problem. We were all aware of this aircraft's recent history of oil-pressure gripes on the starboard engine. My last flight in this particular Prowler had been one where the engine merely made the minimum of 40 psi above 90 percent.

It wasn't even worthy of a gripe; it was, after all, in limits, although I did express my concern to maintenance.

All of our checks went normally and we eventually got to the cat.

"Rogering 58,000 on the weight board," the right-seater said.

"Roger 58," I replied.

"Checks complete. Compass off the cat," he said.

"Taking tension," I replied.

As I called the engine instruments on the takeoff checks, I realized my guess about the starboard engine's oil pressure was correct: it indicated only 39 psi, just shy of the 40-psi minimum.

I was tempted to blame it on parallax—it was only 1 psi. Common sense pushed that thought away.

"Suspend," I called.

"You're suspended, 605," the Boss called. "What's the problem?"

"Starboard engine's oil pressure is low, Boss. It's showing 39 psi."

"Understand you're down, 605?" the Boss asked, trying to clarify the situation.

"Affirmative, Boss."

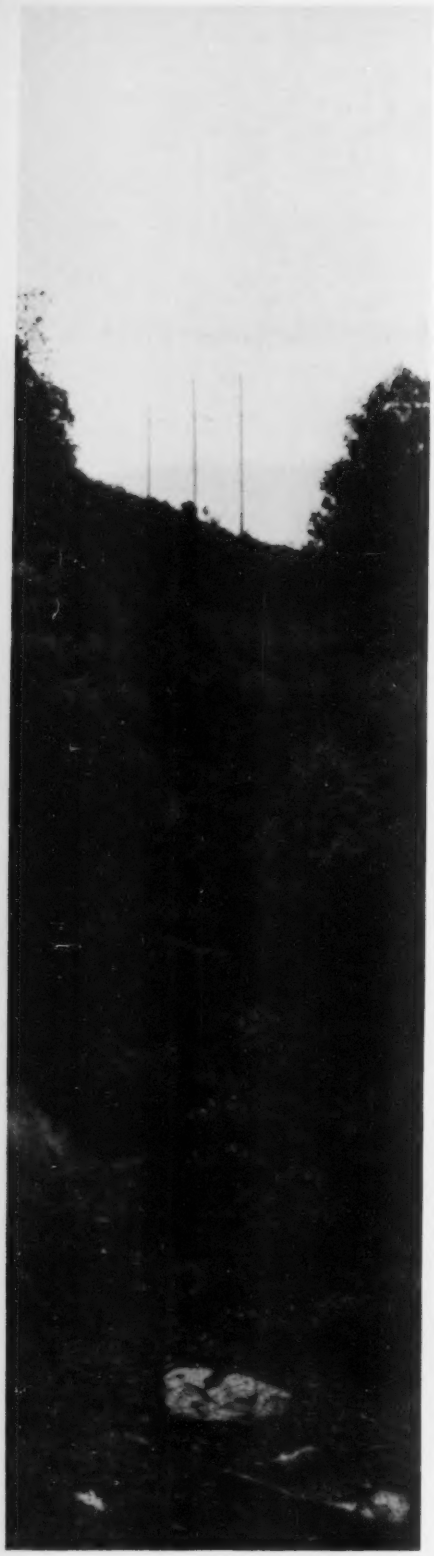
After shutting down and writing up the gripe, I got an interesting debrief from our tower rep. The Boss was surprised to see our squadron lose an event over 1 psi and he joked that our maintenance department wouldn't be too happy with the pilot.

This brings me to the title of this article. What is the limit? The dictionary defines "limit" as the point, edge or line beyond which something cannot, or may not, proceed. NATOPS would probably replace "may not" with "shall not."

In this time of budget cuts and fewer flight hours, we can't let our judgment become clouded by the desire to fly. There is nothing desirable about a single-engine cat shot in a Prowler with 9,000 pounds of stores in the heat of the Gulf of Oman. By lowering our limits, we lower our standards.

By the way, we learned later that 605's oil pump had failed. ◄

Lt. Iovine flies with VAQ-139.



Return from

By 1stLt. Tony A. Dulley, USMC

The air was cool and calm, and the sun was still below the mountain peaks to the east. It was the preferred time of day. Soon, the sun would rise, bringing temperatures above 100 degrees and density altitudes above 8,000 feet. During the summer months, the San Gabriel Mountains challenge even the most experienced helicopter pilots.

We stayed in a church summer camp, south of Sulfur Springs along Highway 2. Our two UH-1N crews supported a company of light armored infantry (LAI) in drug-interdiction missions. We flew troop insertions, troop extractions, reconnaissance, and resupply.

After the weather brief, we made the 20-minute drive to the helicopter pad. We reviewed our mission, which we had briefed the night before. However, there was something new. One of the LAI teams that was supposed to be extracted by van that morning failed to show. The command center asked us to fly over the canyon and establish communications since the mountainous terrain didn't permit communications with the command center.

Before the 0825 launch, we briefed for the new mission and reviewed our hazard map for the route of flight. I was copilot in the lead aircraft since I helped insert the team. Onboard, we had the LAI company's XO and a crew chief.

The canyon was 13 miles east. The PIC flew to the canyon at 100 knots, between 500 and 1,060 feet AGL. Just before arriving at the canyon, we radioed the team, and they responded. We entered a right orbit. They said that they were at the extract point but that there was no van. Their XO asked us if we could find the van.

We tried the radio first to no avail. Then, we decided to search a road three miles south of the canyon. We were going to fly down, intercept the road and follow it west for a mile. If we did not find the van, we would turn back, follow the road to its intersection with a highway, and search the highway. We briefed our Dash 2.

We dropped down and leveled off with our altitude varying between 300 and 400 feet at 70 to 90 knots. This altitude allowed us to see through the trees along the road. Some big power wires were strung along the side of the road. Keeping those wires in sight gave us some clearance.

Wire Mountain

Once at the road intersection, we veered right. I was looking over my left shoulder up the highway during the turn, but hadn't spotted the van. Suddenly, the Huey started bucking. I turned my attention back to the front in time to hear a loud pop, which scared me like my sister did when she waited for me behind the bathroom door. My windscreen cracked from the upper left down to the lower right. The PIC said something about wires. I looked at him. He was motionless and unexcited. Then, I looked down through the chin bubble at the tree tops pointing up at us. Trees never looked so directly pointed at me before. I traced every fine line of the rocky bluffs. Then calmness swept over me as I thought, "Well, this is it." I had heard others say those words before. The Huey bucked repeatedly, its nose raised, and the airframe gradually rolled right. It lunged and fought for survival. Then, we broke free.

The aircraft came out in a climbing right turn. I immediately checked the gauges and reported all normal indications except airspeed—that gauge read zero. Our speed was probably 40 knots. My PIC leveled the aircraft and

C.L. Gilliland

got it under control. He kept climbing to compensate for the terrain. We were now heading toward the west canyon wall. I called out a parking lot to our left for landing but received no response. The PIC was concerned about a strand of wire approximately 25 feet long dangling from the right skid. He didn't want to turn or descend for fear of FODing the tail rotor.

Our crew chief, while wearing a gunner's belt, took action. He stepped out onto the skid, reached down, and released the wire. My PIC then turned toward the parking lot and descended. He kept all power and cyclic inputs smooth and gradual. He made a long shallow downwind over the river bed with a wide 180-degree turn and a long, shallow approach into the parking lot. We landed with a short, soft slide.

I broke out the NATOPS and we shut down. Dash 2 followed us the whole way and managed to avoid hitting the only strand of wire that survived our assault.

Our aircraft suffered a fair amount of damage. A rotor blade had a five-inch gash in the trailing edge and a three-inch hole in the top. Both blades had copper abrasions and dents. The antennas, searchlight, and pitot-static drain lines on the bottom of the aircraft were also damaged.

On the top of the aircraft, the wipers and pitot tube were torn off and a greenhouse window was broken. Both windscreens were cracked and the tailboom was dented from being whipped by the wire.

Aside from the aircraft, the LAI's XO had been hit by a piece of wire but suffered no serious injury.

We had hit three high-tension wires that were a half-inch thick. They had stretched across the middle of the canyon from midway up the canyon wall to the top of a low hill on our left. The wires were green from corrosion that made them virtually impossible to see against the backdrop of the canyon walls.

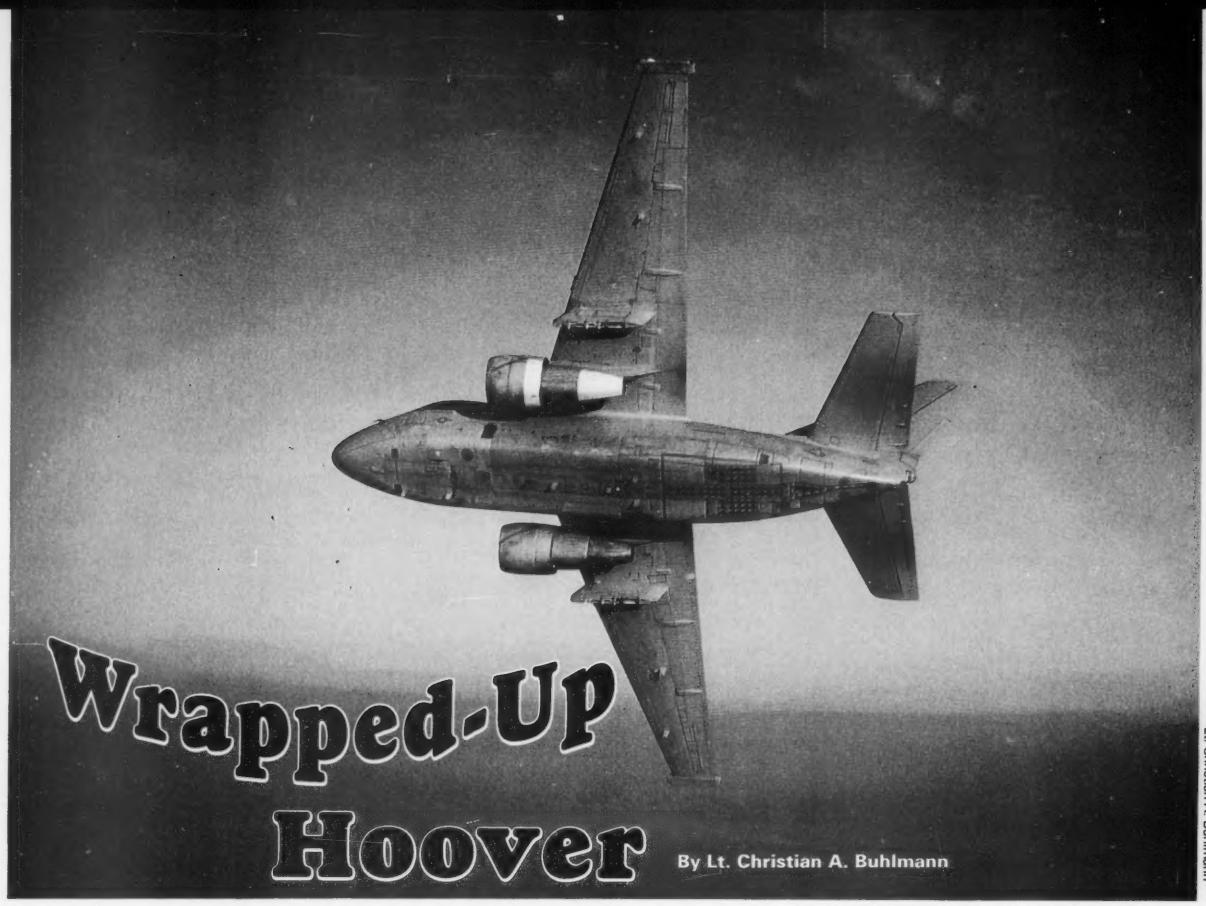
Our Dash 2 had not seen the wires until we were tangled in them. As we stood in the parking lot, we spotted many other wires we hadn't seen. How we kept from striking them I'll never know.

We learned many lessons that day. First, find more detailed hazard maps. The map we had did not show the wires. Get hazard information from sheriff's pilots, rescue pilots, and power companies.

A second lesson concerns crew coordination. We emphasize having the non-flying pilot navigate and describe any obstacles shown on the map. He should also scan the gauges during low-level flight. But more responsibility needs to be placed on the non-flying pilot to scan for obstacles. If I had left the van-spotting to the people in the back and kept my attention forward, I might have seen the poles or wires in time to avoid them.

A final lesson concerns scanning. When flying inside canyons, scan for wires at your flight level and above. ◄

1stLt. Dulley flew with HMLA-367. He is currently assigned to HMM(C)-161.



Wrapped-Up Hoover

By Lt. Christian A. Buhlmann

Lt. Christian A. Buhlmann

It took a year before I wrote this article. I got motivated after reviewing S-3 Class A mishaps from 1973 to the present. Nine percent were because the aircraft hit the water. My crew almost added one more.

During the previous two-and-a-half months, the flying had been hot and hazy. We were doing strictly SSC and tanking. Today, however, was our second day off-station from the North Arabian Sea. We had turned over with our relief and were on our way to Singapore for some liberty.

It was not a routine mission – or day. I was the COTAC on a radar services, missile profile hop to help a couple of *Knox*-class frigates calibrate their radar. The weather was superb, real VFR for a change, 20 miles visibility, with just a few cumulus clouds.

After the usual check-in with the small boy, we began our runs. We jinked around and ran in at low altitude to see if they could maintain track. After four or five profiles, the frigate's CO asked us to make a close pass for troop morale. Yes! Icing on the cake for a great fly-day.

My pilot and I briefly discussed what we would do. Stern to bow, port side, 270-degree turn to cross the stern at max knots and available G.

At this point in our cruise, we were sure of our abilities, and besides, we don't often get the chance to make our Hoovers perform.

We started out at 7,000 feet and several miles behind the FFG. We passed the stern at 400 feet and 400 knots, rocked the wings, and rolled left into a tight turn. We dropped like a rock.

I remember the baro altimeter at 100 feet, and a 90-degree bank. The radalt was beeping my headphones. My hand started to go for the stick when the pilot righted the aircraft and put more sky between us and the Indian Ocean. In retrospect, I reacted too late. Ejecting at that moment would have been out of the envelope. My impulse to try to recover the aircraft myself was more from instinct than from practical consideration.

During the debrief, we took a few moments to discuss how we almost left our loved ones $100,000 of SGLI money. Yes, we had operated at the edge of the envelope all afternoon, and then we let our cockiness take us beyond.

I'm happy that I can sit here and write this story. It's a shame that many of us don't realize our own mortality until we almost lose it. ◀

Lt. Buhlmann flies with VS-35.

Too Close for Comfort

By Lt. Brian K. Waterhouse

Hazy skies, partially obscured, 7nm visibility, steady deck, no horizon—dark! Another typical summer night in the Med, only this one had a twist.

"205, three-quarters of a mile, on and on. Call the ball."

"205," the RIO replies, "Tomcat, ball, 6.5."

"Roger, ball, 27 knots."

During the next 20 seconds, a little settle on start turned into a high in the middle.

As the pilot corrected off the high, the calls started. "Little power. Power, power, power. Wave off, wave off!"

In six seconds, the aircraft went through all five cells of the Fresnel lens. As he crossed the ramp, his hook hit the rounddown. In a shower of sparks, the Tomcat taxied down the angle, coming to a safe stop after snagging the 2-wire.

The LSO's calls were timely. What went wrong? This incident is not an isolated one. In fact, it is one of three hook slaps involving F-14s from our air wing during this deployment, and one of several ramp incidents in the Navy in 1991.

The F-14 is reputed to be the hardest aircraft to bring onboard a carrier. The A model, with its TF-30 turbofans, does not have the best power response. With a 64-foot wingspan, lineup is critical. A late lineup correction, coupled with not enough power, can spell disaster.

Two of the three hook slaps during our deployment occurred during the pilot's second pass; their first passes had been waveoffs. Each of their second approaches started out on and on, but deteriorated. In one incident, the pilot drove it high in the middle then set up too great a descent in close.

In the other case, the pilot was working the low side and

In a shower of sparks, the Tomcat taxied down the angle...

never got enough power back on the aircraft to keep it on glideslope. The third incident was an auto pass. As in the first incident, a high in the middle led to too much rate of descent in close. The result for all three pilots was the same—low and underpowered at the ramp.

We are all trained to respond to LSO calls, but how do we react to his calls under pressure? When an LSO makes a call, he expects a timely, accurate response. Otherwise, he'll make other calls. If these pilots had responded correctly to his first power call, the second call and ultimate waveoff would not have been necessary. Never make the LSO give you a second power call.

Each pilot set himself up for a difficult, but recoverable, situation. Their reactions caused the hook slaps. As the waveoff lights came on, the pilots correctly added military power, but failed to hold the proper fly-away attitude.

In the F-14, as power is added to military, subsequent disengagement of DLC causes the nose to pitch up. Initially, slight forward stick is required to keep the aircraft from over-rotating. As the added power takes effect, a slight aircraft rotation is needed to maintain 15 units AOA and to minimize the sink rate.

In all three cases (and all hook slaps in corporate memory), the pilots over-rotated as they began their waveoff. This action, coupled with a slow aircraft's attitude at the waveoff, lowered the hooks enough to hit the rounddown. If the pilots had maintained proper attitude, the waveoff would have been successful, or they might have gotten a long taxi 1-wire.

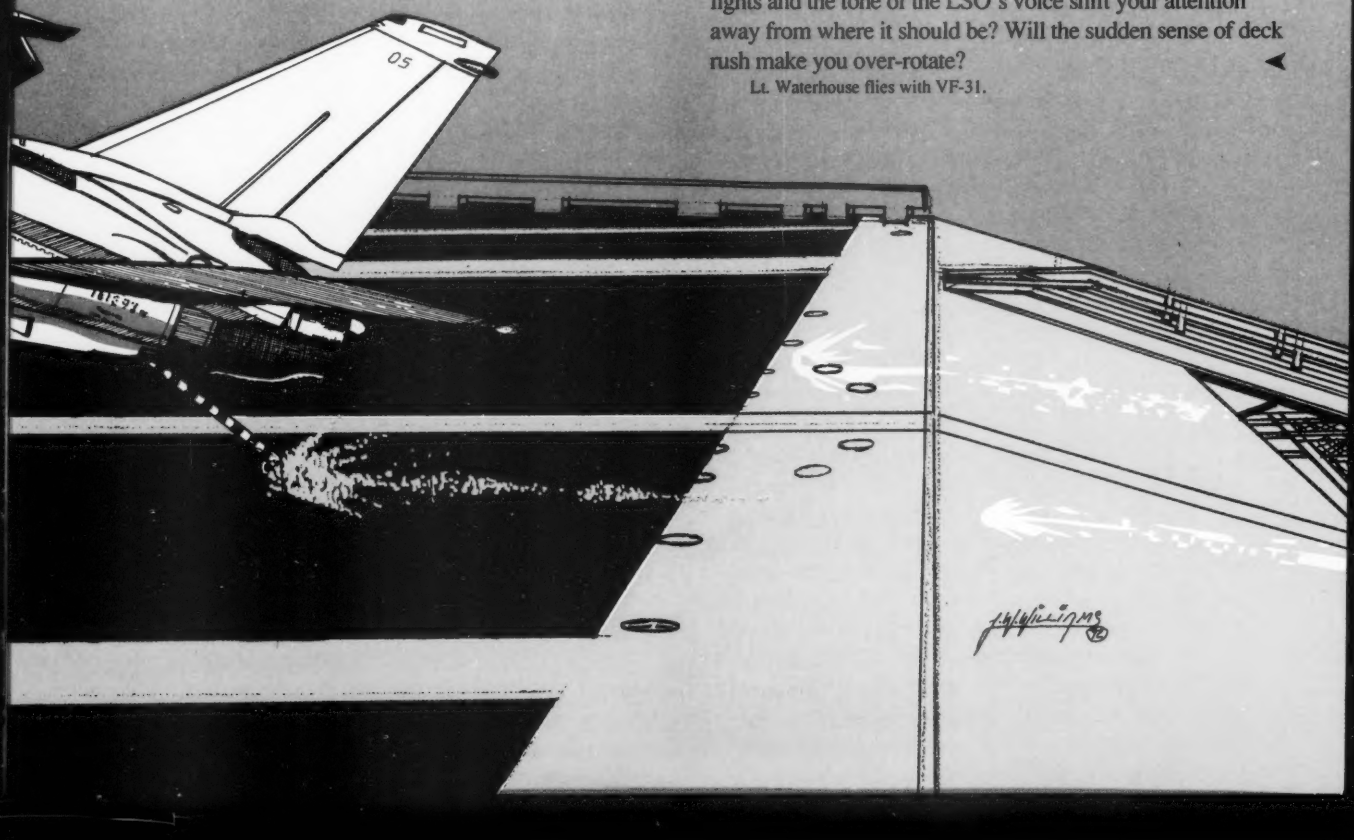
In the Tomcat, the optimum approach AOA is 15 units. With its long moment arm, the slightest stick movement (fore and aft) can make a dramatic difference in hook-to-eye and can significantly reduce hook-to-ramp clearance. Increasing the AOA by one unit lowers the hook by one foot, causing it to touch down 16 feet closer to the rounddown. The hook-to-ramp clearance on USS Forrestal (CV-59) is only 10.9 feet, leaving little room for error.

Flying a low ball is never the place to be—your chance of clearing the ramp is obviously decreased. You must maintain the proper approach speed throughout the pass. Holding the aircraft in that landing attitude throughout the waveoff is also crucial.

The next time you are doing FCLPs, take a good look at your waveoff procedures. Is a practice waveoff tossed in just to check the block? Anyone can make a proper waveoff from an on-speed centered-ball pass. How about when you're chasing lineup with the aircraft not on-speed and with the ball not exactly where you want it?

Will you stick to your training and hold the proper attitude as you fly away? Or will the flashing red waveoff lights and the tone of the LSO's voice shift your attention away from where it should be? Will the sudden sense of deck rush make you over-rotate? ◄

Lt. Waterhouse flies with VF-31.



How Many Nuggets Make a Crew?

By Lt. Jeff S. Spearman

PH2 Tracy Lee Didas

We were flying in support of international safe-passage regulations. Suddenly, the ship's CO came over the 1MC, "We have a critical situation that requires the carrier's aircraft". He immediately called for a pair of F/A-18s and an E-2C to be launched.

While these aircraft were taxiing to the cats, the CO continued his briefing to the ship's crew. He said that an American warship was under attack north of our current position at approximately 300 nm. Shortly thereafter, we went to general quarters.

I was doing normal JO duties on the Nintendo in my stateroom when the 1MC burst into life. I immediately headed for the ready room to see what the plan was for our squadron.

The Alert-30 crew was just about to be relieved by the new crew. But the new crew hadn't properly preflighted and set the alert with air ops, so the old crew insisted on launching with the Hornets.

But wait! Suddenly, through the crowded ready room walked a man with a vision of greatness, proclaiming that he would supplement the crew with his presence.

"What?" I said to myself. "He really shouldn't do that, should he?" I left that decision up to the more senior mission commanders. But to my surprise, nobody said a thing. So the newly augmented crew stormed off to the flight deck and flew away.

I had about a dozen questions running through my head. I called aside a senior mission commander, whom I believed to be one of our finest, and asked him if what I had just witnessed was proper. As it turned out, he also was a bit disturbed by the events, but he reasoned that "the inexperience of the alert crew to handle such an event required a senior (more experienced) crew member to be present."

I was a newly qualified mission commander myself, and earlier in the day had noticed that another new mission commander had been assigned the alert with a crew of fresh-out-of-the-FRS nuggets. We even joked about it at lunch and dinner in the wardroom. Later, I wondered why no one had done anything about it.

I remembered a question that was posed to me during my MC Board. "What would you do if you were scheduled with the two most junior, inexperienced aircrew in the squadron and had to perform live aircraft-intercept control, a practice war at sea, and ensure that air traffic control center had all the information on your overland practice strike package?" I replied, "I'd schedule a more formidable crew".

It is Ops' responsibility to schedule a qualified crew for every event. No crew should have to be augmented to complete a mission. If they're not qualified to do the mission then they should not be scheduled. ◀

Lt. Spearman flies with VAW-112.

I'm So Tired...

By Lt. Andrew Bilton-Smith

Yeah, it was dark. Yeah, it was wet. Yeah, the weather wasn't nice. When else do A-6s fly?

I was midway through FCLP in the A-6 FRS on my way to my first squadron. Bouncing was going well. The problem arose when I was scheduled to fly a two-cycle night bounce period. I assured the senior LSO that I could fly the sortie after a five-hour drive from my parent's home. Because of the rigorous schedule of FCLP, I could only find this day-and-a-half to conduct my business.

I had driven five hours with my windows rolled down because I didn't have any air conditioning and my eyes felt very dry. I was tired from the wind blast and extended drive, but being the trooper that I was, I elected to fly.

I was flying with a lieutenant commander, and we were getting quite comfortable as a crew. The brief was standard as I kept telling myself I was up to snuff. I told my BN that I was a little tired from the drive, but I was ready. We launched to our local OLF and did six touch-and-goes. I thought that they were the worst passes I had flown since I started FCLPs. My reactions to the ball were painfully slow and my eyes burned. There was a 20 knot-crosswind at pattern altitude and it was raining hard. I really needed to be 100 percent on a night like this. To top it all off, the normal mode of the autopilot didn't work.

Upon our return to the field, I said that I felt I just wasn't up to night FCLP. After about 10 minutes of conversation and weighing all of my options, I came to a landmark decision for a student: despite the possibilities of standing in front of the ops officer for not making the flight schedule, not getting the "X," or looking like a wimp or non-hacker, I decided to park it. I was about 50 percent of my normal self, and it just wasn't worth losing an aircraft in a training environment because I felt I was tough enough to bang out one more FCLP.

The lesson learned proved to be very inexpensive. The SDO looked at me a little funny when I walked into the ready room and explained why I didn't want to fly again. The next morning I spoke to the head LSO and found my grades for that night were 3 OKs and 3 fairs. He also fully understood and supported my choice not to go. That was the last I heard of it.

As long as we're not in combat, I feel every squadron should encourage this behavior! The fleet A-6 squadron I'm assigned to does, and that may be why we've flown more than 60,000 hours in 13 years without a class-A mishap.

We've all read the mishap reports where the pilot told all his buds in the ready room that he was really tired and not up to flying, yet went out anyway but did not return. This was one of the hardest decisions I've made as a pilot, and certainly as a student pilot. Since we all have an image to protect, it is very difficult to say enough is enough, but sometimes we have to swallow some of that pride. ◄

Lt. Bilton-Smith flies with VA-95.

We Really Broke the Chain—for Real!

By Lt. G.P. Branch

Four months into a six-month cruise, we were on a training flight. For most of the deployment, the weather had been mild, with calm winds and seas. This day, true winds were unusually high, about 40 knots, and the swells were six to eight feet.

Mother (an ammunition supply ship) was transferring ammo via UNREP to a battle-group ship on her starboard side. The UNREP course had the ships sailing perpendicular to the true winds and in the swell's trough. The wind, together with the tension of the UNREP rigs, caused mother to have a steady five-degree starboard list. The relative winds were approximately 340 degrees at 45 knots.

The H-46 is an extremely forgiving aircraft when considering takeoff and landing winds. Usually, you only worry about wind during rotor engagement and disengagement. This day was an exception, however.

As the helicopter aircraft commander (HAC), I had signed for the aircraft and was conducting instrument training with my copilot, also a HAC. Well into the training mission, I checked the remaining fuel and decided to head back to mother to top off before completing our instrument training.

With the ships in UNREP position, my copilot and I knew mother couldn't maneuver for winds. We called the helicopter control officer (HCO) at about five miles. He responded with the winds, pitch and roll, two to three degree rolls and negligible pitch, and reminded us about the ship alongside. The wind was stiff and outside of the shutdown-disengagement envelope.

We discussed the fact that we could not get the winds within disengagement limits regardless of our landing direction. We further noted we didn't have enough fuel to wait until the UNREP was completed. There were no other fuel-capable ships in range. Since we were not having any problems, we decided on making the "routine" landing for refueling.

With a green deck from the HCO, we continued inbound. After all, we had been landing on this deck every day for the past four months and had made several landings during this training flight. The copilot had the controls. He opted for a stern recovery. With the small-boy on mother's starboard side, a stern approach would keep us clear of the UNREP and its disturbed airflow (burble), and allow us to stay almost into the wind.

After our centerline touchdown, I called for chocks and chains, then secured the automatic flight-control system (AFCS). Initially, the deck was fairly stable (except for the noted list to starboard). However, as the chock and chain men ran out, the ship's roll increased. My copilot moved the cyclic in the direction of the roll to keep the aircraft level. Both crewman exited the aircraft to prepare for refueling before chocking and chaining was complete. (This practice had become common since we were used to calm seas.) One crewman disconnected from his ICS cord while the other remained in communication with the aircraft.

The ship's roll kept increasing. The constant five-degree right list, strong relative winds, and increased roll caused the aircraft to begin rolling. At this point, the ship took two heavy rolls in succession; the rolls were more pronounced on the flight deck because of the starboard list. The first roll caused full extension of the left main mount oleo, even with the cyclic fully deflected to the left. The second roll caused the left main mount to lift clear of the flight deck.

When the copilot felt the main mount leave the deck, he pulled collective and lifted off to prevent dynamic tipover, an angle where the center of gravity can no longer be controlled from the cockpit, causing the helicopter to roll over.

The winds and direction of aircraft momentum at the time of liftoff made the aircraft drift right as it broke the deck. While the helo lifted off, the chock-and-chain man on the starboard side had hooked both tiedown chain shackles to the aircraft's wheel ring and both chains to the ship deck padeye. However, the chain had not been inserted into the shackle but was only hooked by a (fortunately) frail retaining ring designed to keep the chain and shackle together as one piece. The port chock-and-chain man had only one shackle attached to the

...but we were used to calm seas.

aircraft and one to the flight deck padeye. Chocks were in place on both sides.

As we took off, our stubwing bumped the chainman on the starboard side and broke the chain-retaining rings on both sides of the aircraft. Had the chains been attached to the shackles, we probably would have tipped over.

I quickly turned on the AFCS while my copilot stabilized the aircraft. The crewman on deck, still tethered to the aircraft by his ICS cord, talked us in to a safe landing. His precise calls enabled us to land while avoiding chocks and pieces of chain still on deck.

We should have paid more attention to the environmental factors—high winds coupled with occasional large rolls which were aggravated by an unavoidable list. We would have elected to pedal-turn after completing the centerline approach and landed pointing to port. This would have had the obvious effect of minimizing the lateral travel of the helicopter and changed it to longitudinal, much more favorable.

It is also common practice to bottom the collective after landing on a rolling or pitching deck, effectively putting more weight on the wheels, but we were used to calm seas. Because of routine calm seas and low winds during the deployment, we didn't think twice about disembarking aircrew while in the process of being chocked and chained. It is never appropriate for any personnel to disembark from an aircraft before it is chained.

The HCO could have broken the chain of events leading to this incident simply by recommending a starboard-to-port lineup on touchdown. As the aircraft commander, I was responsible for "the safe and orderly conduct of the flight." I assumed my copilot would pick the safest way to land. I should have told him to bottom the collective while positioning the cyclic to counter roll. After this incident, our aircrewmen won't leave the aircraft until it is securely chocked and chained. ◀

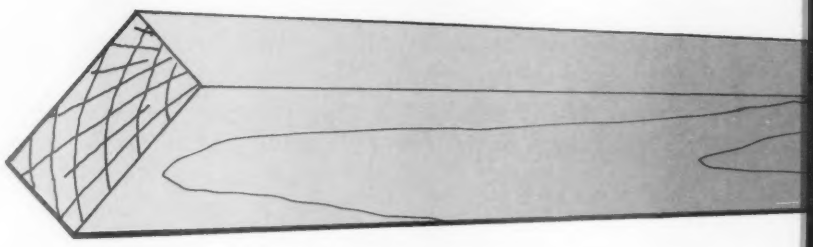
Lt. Branch flew with HC-6. He is now assigned to HC-5.

Get Their Attention with a 2x4, Chief!

By LCdr. Phil Loga

It was a typical night SSSC mission in the Med. We launched at 0300 in EMCON. The brief, preflight, and start-up were normal, and it looked like we would have a good flight. Unfortunately, when we turned on the Tactical Navigation (TACNAV) system, the sickly green glow of the display told us that we had lost the computer.

I turned to my copilot and asked him if he felt proficient with the Mk-6 plotting board. He said he was OK, and we agreed that both of us could use the practice. The crew felt comfortable, and we prepared for what proved to be a most eventful flight.

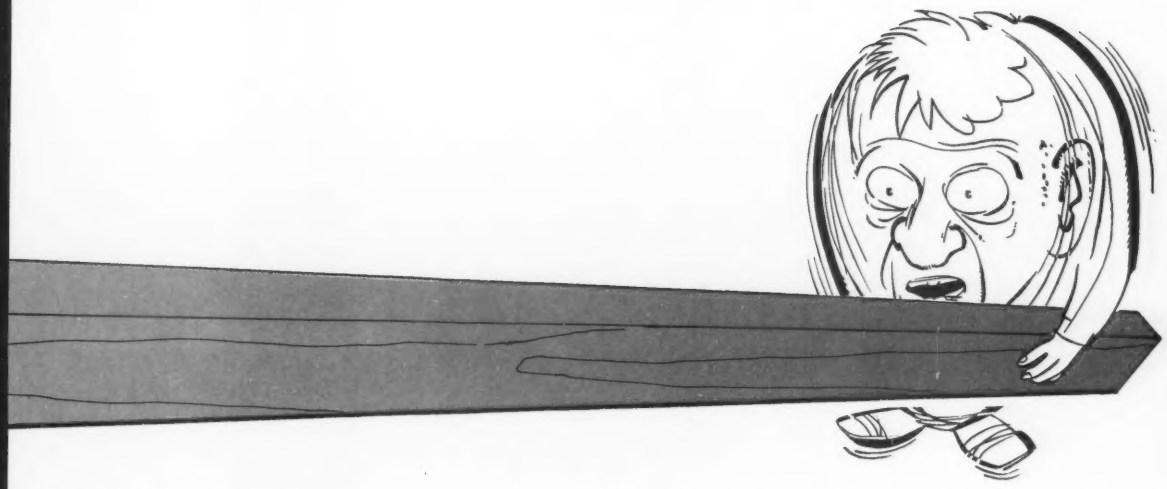


We launched in 30-knot winds and headed east. At 15 nm from mother, we popped up for our first radar sweep and checked in with our OPS normal report. Our sensor operator reported several contacts 60 nm south of our position, so we headed that way. We flew for another 15 minutes and popped up for our next sweep. Our senso reported that he held no contacts and that his range rings were disappearing. Troubleshooting couldn't restore his radar, so we faced the reality of being 30-40 nm from home with no dependable navigational aids.

Realizing our problems ran deeper than just a TACNAV malfunction, we turned toward mother's last known position. I racked my brain for a connection between the two failures. My copilot gave me a heading to fly, and after a few minutes we decided to try a UHF-DF cut to verify our course. We received a short count from home, but the radio signal was very weak and broken, with control unable to read our second transmission. Our problems were mounting.

The cockpit discussion focused on the possibility of a DC-power malfunction, but we had no other indications and no caution lights. Just as I began working through some of the possibilities, like thermal runaway or generator over-frequency, we lost ICS and hydraulic boost. Although we never had a converter caution light or any popped circuit breakers, it became obvious that we had experienced a total DC-power failure.

We started the memory items for DC-power failure, and when the battery switch was returned to the "on" position we had a complete electrical failure. Fortunately, we had a visible horizon



and both engines stayed on-line.

After a few moments, I asked my copilot to return the battery switch to the "off" position, and AC power was restored. Now only the wet compass, the fuel totalizer and assorted interior and exterior lights worked. We spotted a white light to the right, and hoping that it was homeplate, I turned toward it.

Our ICS was inoperative, so I yelled to my copilot (over the noise of the aircraft) to transmit our problems on his PRC-90. We dropped the landing gear and asked the senso to pin the starboard main mount. He checked the position of the data-link antenna, and as we expected, the antenna was down. We finally closed the contact and were very pleased to find that it was homeplate.

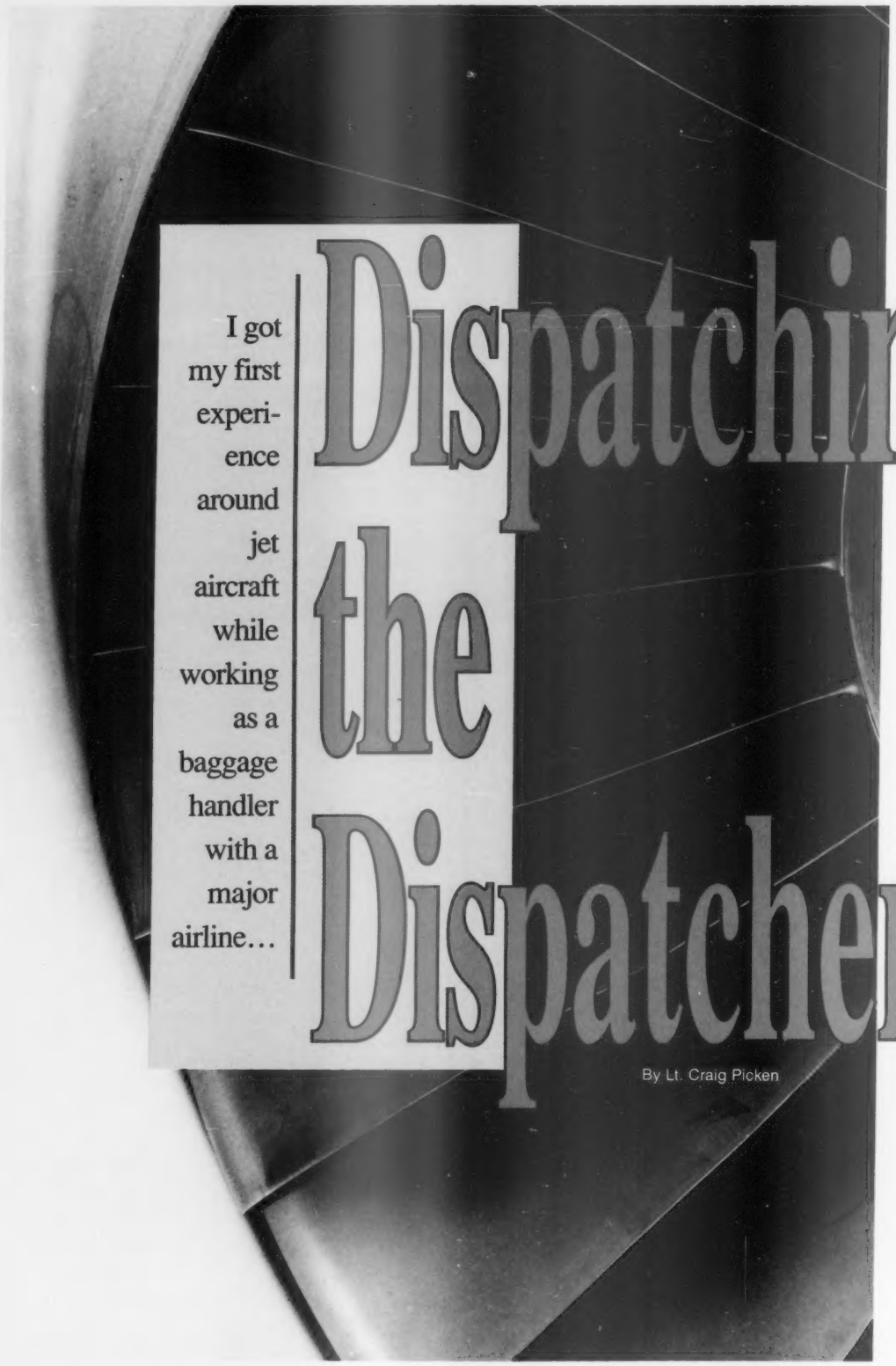
I made a low pass in front of the bridge to get their attention and the senso blinked his flashlight. We flew up the starboard side as my copilot fired a pencil flare to indicate that we needed an immediate landing. The ship turned into the wind and gave us a green deck in record time. We made our approach with 250 pounds of what we hoped was useable fuel and pulled into a high hover over the deck.

The LSE, who was unaware of the nature of our problem, noticed the extended data-link antenna and attempted to wave us off. I stayed in the high hover, hoping that someone would realize that the antenna must be broken off. My det chief ran back into the hangar and reappeared with a length of wooden 2x4. He ran under the aircraft, took a mighty swing at the antenna, and broke the 2x4! A second swing successfully broke off the antenna, allowing us to land. The crew pinned and chained the aircraft, and I shut down uneventfully using deck-edge power.

The culprit turned out to be a faulty DC undercurrent sensor, which never energized the converter or the associated caution light during flight.

Crew coordination was our salvation inside the aircraft, but poor coordination with the ship and flight deck crew nearly caused our downfall. We conducted a thorough brief, which helped us handle the emergency quickly. However, our return to homeplate was far more complicated. The bridge team and flight deck crew didn't recognize our emergency, so they couldn't help us. None of our PRC-90 transmissions were received. We had emphasized coordination within our crew during an emergency, but we had neglected the vital role that the ship must play. ◄

LCdr. Logan flies with HSL-34



Dispatching the Dispatcher

I got my first experience around jet aircraft while working as a baggage handler with a major airline…

By Lt. Craig Picken

A few years ago, during my starving college student days, I got my first experience around jet aircraft while working as a baggage handler with a major airline in New York. Although there was a mandatory safety course for all ramp employees, most of it dealt with the topics required by the company's insurance carrier, such as crushed hands and tow tractors. Despite being almost a week long and fairly thorough, the course contained very little about the dangers of working around jet engines (very large jet engines I might add) and as a result, I almost joined the human FOD club very early in my airline career.

A few days after being hired, I was into the job full swing, eager to get my hands on every piece of equipment in sight while learning about the planes we were working around each day. To be honest, I was having a ball, and at 10 bucks an hour, not even I could think of a better way to keep my refrigerator stocked and simultaneously work on my budding career as a future naval aviator. Unfortunately, all good deals come at a price and this was no exception.

To keep the job, one had to please the boss, no matter how dumb his orders seemed to be. During one particularly busy period, with all the gates stuffed with airliners, I was in charge of dispatching a DC-8. The flight had already been delayed several times, and nobody was happier than me to see the mechanics push it back and get it out of our hair.

However, just as the pilot started his fourth engine, I noticed my boss waving frantically and simultaneously pointing at the airliner. It didn't take a genius to figure out that the box laying at his feet was intended for that flight. My first instinct was to blow it off and let the plane leave, but I soon realized his intentions were much different.

Although something didn't seem right, I was eager to please and listened to his instructions on following the longitudinal axis of the plane, keeping very close to the fuselage until reaching the cargo door amidships. This technique would allow the box to be loaded without forcing the pilot to shut down an engine and further delay 165 paying customers.

Thirty uneventful seconds later, the box was loaded, and I was ready to get to the lounge for a much deserved break. This time, I forgot about the turning engine, and thoughtlessly made a quick left turn, walking three steps directly into its sucking path. There I was, staring at this huge turbofan while being sucked off my feet. I quickly dove under the fuselage and prevented myself from becoming human FOD.

Feeling stupid and shaken, I began the trek back to the lounge to collect my wits. Unfortunately, my chosen path back took me immediately aft of a taxiing 727, which proceeded to blow me into a blast fence 10 feet away. About that time, I decided to go chase one of those beers I had earned and called it a day.

The moral of the story is simple: jets are not for kids and their engines are hungry for your hide. Now that I'm actually allowed to fly gray Navy aircraft, I think about that day every time I walk across the flight deck. With my awareness being just shy of paranoia, my head is always on a swivel and I'm sure a similar incident will never happen to me again.

If someone ever asks me to do something similarly stupid and hazardous again, I will ignore him. It really is less painful to get chewed out than chewed up. ◄

Lt. Picken is an NFO with VAW-116.

The Home Stretch

By Lt. David Renberg

PH1 (AC) Scott Allen

We could see Wisconsin's 16-inch guns firing toward Iraqi positions on the shoreline. Our Senso passed the latest set of radar cuts onto the TACNAV screen: the tip of Kuwait City, the southern corner of Faylaka Island, the battleship, and several of the coalition surface ships in the battleship fire-support area. The TACAN showed homeplate 55 miles to the southeast. We had 1,800 pounds of fuel on board, enough for another 30 minutes on station and a safe cushion on the flight home.

The smoke from hundreds of burning oil wells hid the coastline and darkened the skies over most of the North Arabian Gulf. The visibility had dropped to five or six miles. The soot and particles of oil suspended in the air spotted the windshield of our SH-2F Seasprite as we hummed through the smoke layer at 150 feet. Anything higher was IMC, but the ducting gave us good radar ranges and allowed us to carry out our SSC mission at lower altitudes.

There was still an Iraqi small-boat threat, and the previous night's message traffic indicated that several contacts had been spotted fleeing Bubiyan Island for the Iraqi coastline. Coalition forces had severed the only bridge leading off the island, forcing the Iraqis to leave by boat or face a possible amphibious assault.

Our Senso picked up what appeared to be two small boats on his radar screen about 35 miles to the northeast. I turned to put the contacts on the nose and reported to ASUW Control. They directed us to close the small boats and visually identify them.

The next set of radar cuts showed the contacts several miles off the southern coast of Bubiyan Island, tracking northeast toward the Shatt-Al-Arab Waterway. The aircraft commander asked for a fuel check; we had 1,600 pounds. I looked down at my BDHI and saw a spinning TACAN needle and an "off" flag in the DME window. The ship's TACAN had repeatedly given us inaccurate bearings. The DME, however, had always been reliable.

I dialed in the TACAN channel of a closer ship and got a strong lock. Our equipment seemed to be working, but we were just too low and too far away to pick up homeplate.

Our fuel was getting a little tight and the TACNAV computer showed our ship to be 61 miles away. I calculated it would take about 700 pounds to reach homeplate, so we had 400 pounds before bingo with a 500-pound reserve. The entire crew was eager to contribute to the war effort by getting the VID and possibly cutting off the fleeing Iraqi forces. Our Senso called the contacts bearing 030 at 20 miles, but instead of continuing inbound, the HAC turned away to the south. He was heading home.

I thought we had enough fuel to play with, but we notified ASUW Control that we were bingo. Control advised that there were no other aircraft available to continue the VID mission and asked how quickly we could hot-pit and return on-station. With homeplate over 60 miles away and no decks in between, it would be too long. We would lose them for sure.

We continued southward toward homeplate. A few fuel checks later, our Senso picked up a group of ships on the nose. The radar cuts correlated with the position of homeplate on the TACNAV screen and our TACAN was intermittently locking on homeplate. The ship held us in radar contact and advised us that there were several H-53's in the area. Thirty miles to go, 800 pounds, sweet comms, no sweat.

The sky was darker than it had been near shore and visibility was about three miles. We pushed through the haze toward the ship we held on our radar scope. A few minutes passed, then a grey hull appeared through the smoke. No one spoke for several seconds; it was not our ship! We had flown to one of the British minesweepers operating in our area. My eyes shot to the TACAN needle. It was still spinning.

We were down to 500 pounds of fuel. We asked

. . . it was not our ship! We had flown to one of the British minesweepers operating in our area. . .

control for a steer, but what they gave us would have pointed us away from the other contacts we held on our radar scope. Control had confused us with one of the H-53s. We pressed the IFF ident and switched the No. 1 radio to the ADF mode.

Several minutes later, the aircrewman called a contact 40 degrees to the right at two miles, but we had no visual. We pushed through the smoke and happily saw homeplate. We had a green deck on arrival and landed with 350 pounds. Just minutes before, I had been willing to burn another 400 pounds chasing Iraqi patrol boats. I had been caught in the heat of the moment and had wanted to stretch my fuel. If it had not been for the seasoned HAC sitting next to me, I might have put us in the water just miles short of homeplate. I had not counted on the low visibility, TACAN inaccuracies, and the confusion with the other helos.

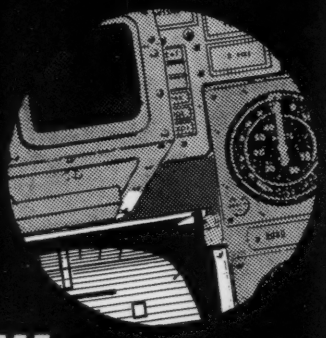
A 20-minute cushion may be enough if you do the proper planning and your equipment works as advertised. We were fortunate. Next time I won't put myself in a situation that requires as much luck. ◄

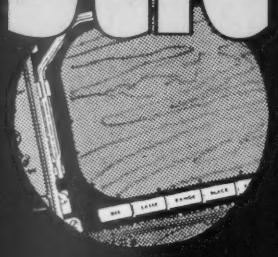
Lt. Renberg flies with HSL-34.

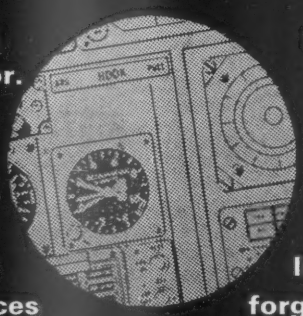
PH1 Mark Kettenhoffen

Unrealistic

by Lt. Mark Swayne







We all start our flying experience in the simulator. Often the instructor's favorite way to end the session is to simulate a total electrical failure at night. Since you don't have your flight gear with you, chances are that you have no flashlight to read the instruments. You either "eject" or "crash" because you can't see a thing. As you crawl out of the trainer, you silently gripe about how unrealistic the instructor was for turning out the lights.

It was a dark night for our second night CQ. We needed just two night traps to be the first Cat 1 FRS crew in our class to finish. My pilot was doing well, especially at night. He had the top night grades from the previous evening period. I felt comfortable as I stood on top of our A-6 and looked across the flight deck of the Navy's newest aircraft carrier.

After I rogered the weight board and we moved to the catapult, I scanned the cockpit for the last check before being vaulted into the night. As my pilot took tension and started his wipeout everything checked good, but I felt like something just wasn't right; I'd forgotten to take out my flashlight.

My CQ phasehead always told the BNs to have their flashlight pointed at the cockpit instruments during a cat shot, just in case both generators fell off line. Just as I finished screwing on the flashlight's red lens cover, my pilot said, "Looks good. All set?"

"Ready to go," I replied.

"Lights are coming on."

Wooosh! At the end of the stroke, just as our plane lifted into the sky, the right side of the cockpit went dark. One of the generators had fallen off-line, as we continued to climb with no other problems.

"Pull the RAT", I told my pilot. The ram air turbine spins above the left wing when extended, and powers the

THE PAPER AND INK USE
PULICATION MAY AFFECT
THE MICROFORM EDITION

Instructor... Not!

essential electrical items that are needed for flight.

"Already done. The generator won't reset."

We turned downwind at 3,000 feet and my pilot had no luck with his attempts to reset the CSD. After calling abeam with our fuel state and raising my seat up and forward for a better view for the trap, the lights went out and it became very dark. I immediately turned my flashlight on the instrument panel. I could hear the engines get louder as the gyro precessed to display a 5- to 10-degree climb with airspeed starting to rise.

I keyed my ICS foot pedal easily 10 times before I realized that my pilot couldn't hear me. I pulled off my mask, yelling for him to again pull the RAT. He kept shaking his head up and down trying to tell me that it had already been pulled.

My flashlight stayed on the instrument panel so that we could monitor the airspeed, altimeter, VGI, and VSI. The plane was flying fine, but the A-6's VGI lasts only three minutes without power. I looked outside for the horizon but could not define one. I thought about what I was going to do when the VGI rolled over and died.

Seat height and tilt have no effect on ejection. That phrase in NATOPS did not give me a warm and fuzzy feeling as I sat there with my helmet above the ejection seat tilted towards the radar. I knew that it wouldn't work, but I tried to move the seat down and back, anyway. It's amazing how all of those electrical devices don't work without power.

By now, my pilot had pulled the RAT handle an extra five times, and was on his tenth attempt at resetting the second generator when power was finally restored. Just as the radios came up, the ship told us to turn inbound at 10 nm and asked us if that extended downwind had given us enough comfort time before our first night trap. Oh, yeah .... plenty. Any more comfort time like that just shouldn't be had in one lifetime.

We experienced no other failures and landed single-generator safely on deck, grabbing an OK 3-wire. As we taxied off to the side for shutdown, I had a greater appreciation for that unrealistic instructor who turned out the lights in the simulator. ◄

Lt. Swayne is a BN with VA-52. At the time of the article, he was assigned to the FRS, VA-128, as a student BN.

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Getting Smoked on Bad LOX

By Lt. John Springett

I was on my first jet cross-country, a trip under the bag in the back of a T-2. The instructor and I had spent a nice weekend at NAS Miramar and had rejoined at base ops about mid-morning on Sunday. I had done the planning the day before so filing took no time at all.

The instructor and I donned our gear, packed our luggage into the nose and preflighted the aircraft. We got in, started up, got through checks and taxied. Once we arrived at the hold-short, the instructor asked me to get our clearance changed from the SID to radar vectors. I complied and received the change, thankful I would not have to fly the SID.

When we were cleared for takeoff, the instructor took control until we were airborne. When I had the bag up, he passed the controls to me. No sooner had I acknowledged taking the controls than departure startled me with an urgent demand for an "Immediate" right turn. Still trying to catch my breath, I complied with the controller's tone of voice by going to MRT and racking in a 60-degree bank, not exactly what I had recently learned in my radio instrument simulators.

Surprised that my instructor did not immediately take the controls, I continued to follow ATC's instructions until we had reached our final altitude of FL330.

I was greatly relieved and settled down to fuel figuring. I felt that I had just about caught up with the aircraft. Not long after I started to relax, center came up and gave us the most dreaded message.

"Charlie 600, please contact San Diego departure upon arrival at your destination."

For the next 20 minutes the instructor and I discussed the departure and revised clearance. We could not decide where we had gone wrong, since departure was responsible for driving us around. Since nothing could be done in the air, I resumed fuel figuring and was more than slightly preoccupied with the vision of my impending "walk of shame".

About 10 minutes later, my instructor asked me how I felt, "I feel fine," I said, figuring that he was already filling out the paperwork for my "down."

Ten more minutes passed and I realized that I was not feeling well. I was decidedly lightheaded, had a whopper of a headache and my fingernails were slightly blue. Having recently been in the hyperbaric chamber I had a good idea of what was wrong. Just as I was about to say something, my instructor asked again, "How are you feeling now?"

"Not too well, sir". Now he confessed that he was

feeling dizzy, and, when I confirmed that we had the same symptoms, we knew we had a problem.

My instructor quickly checked the chart for a divert and found that we were directly overhead an Air Force Base. We asked center for an immediate decent into the field. While waiting for their reply, I dropped the bag and we started to turn. I continued to fly the aircraft and was now following vectors from an alarmed center.

After a short discussion, we decided not to declare an emergency, not really understanding that there was a real problem.

Within minutes I had the Buckeye rolling out on final and was wondering when my instructor would take the controls. As I approached the runway threshold he finally took the stick and brought us to touchdown.

After taxiing to the transient line and shutting down, we discussed how we felt, and at the urging of home base, we visited the Air Force hospital. A painful blood gas test confirmed that there really had been a problem. My instructor's carbon monoxide level had been nearly to the point of causing unconsciousness and I was only a few percentage points behind. As a result the flight surgeon promptly downed us both for 24 hours and sent us to bed.

As to the problem that caused our poisoning, we never did find out for sure. As soon as we went to the hospital, the concerned Air Force maintenance troops purged the Buckeye's LOX system without taking a sample, and refilled the system with their own LOX.

Examination of the system showed only that it had been over pressurized and that there was a leak under the back seat pan. The probable cause was later presumed to be bad LOX as the most likely reason or a leak that siphoned in carbon monoxide from the engine compartment as the most likely secondary cause.

In retrospect, I am pretty happy that we survived this near mishap. If it was not for the training that we receive, like the altitude chamber, we may not have recognized the signs of oxygen deprivation. The first step in any emergency is recognizing that you have one. In this case, things were spun up from the beginning and events may have kept us from recognizing some initial symptoms.

Departure later reviewed their tape and cleared us from any wrong doing. My instructor later confessed that his vision had been blurred, which was why he had delayed taking control. It should not have gotten that far. If you think that there is something wrong, there usually is. ➤

Lt. Springett is an EA-6B pilot with VAQ-137.

Brink of Disaster

By Lt. Kevin A. Nibbelink

John W. Williams

We were slower than 40 knots, with at least 2,000 feet remaining on the runway. I had already told my RIO that braking action on the wet runway was minimal and somewhere in my mind there was even the slightest hint that I might not be able to stop by the end of the runway. When he asked whether or not I wanted to put the hook down, I quickly replied, "I can stop."

With 1,500 feet remaining, anti-skid turned off, and a growing pain in my gut, I passed the last set of arresting gear. When my feet came down on the brakes... nothing! Not the slightest indication of deceleration.

I quickly turned the anti-skid back on and reapplied the brakes. Still nothing. Thinking I was too slow for anti-skid to engage I quickly turned it back off with the same affect. I had about 1,000 feet remaining and the whole world was in slow motion.

The Tomcat that had gone off the end of the runway in front of me was getting very big. I pumped the brakes repeatedly thinking that I might have lost pressure but a quick look down showed the accumulator pressure was in the green. It's amazing how much time it takes to traverse 500 feet at a snail's pace. I could not fathom that the brakes were fine. How could I have less braking action when I'm slow than when I was at 80 knots?

I tried the anti-skid again with no effect. By now that Tomcat filled the forward windscreen and it had my undivided attention. If I was going to go off the runway, I was at least going to clear the last guy. With my feet firmly on the brakes, nosewheel steering on and a bootfull of rudder in, the nose of the aircraft moved ever so slightly where I wanted it to go. It finally dawned on me that I was hydroplaning down the runway.

With less than 300 feet to go, I could see the salvage crew around the first Tomcat start to run as they realized that I had the same "I can do it" attitude as the last guy. Over the next 200 feet, my full boot of nosewheel steering started taking effect. The aircraft skidded to a stop more than 60 degrees off runway heading. I was less than 100 feet from the end of the runway and less than 120 feet from the beached Tomcat.

In the debrief, we asked a very simple question: What is the big deal about taking the gear? Why is there a stigma attached to it? If in doubt, take the gear.

Several pilots had the same experience that I had that day; some were better and some were worse. The ensuing investigation produced 10 pages worth of reminders about flight planning and briefing. But NATOPS says we are in a business that can't prepare you for every situation that you find yourself in. We wear wings because we're supposed to make the right choice to get the job done, like using the hook when we have to. ◄

Lt. Nibbelink is an LSO serving with VF-21.

Convertible Stories

By Capt. Alberto J. Lovera, VAF

We were conducting air combat training with the Puerto Rico Air National Guard. My exchange copilot was a major who didn't know our T-2D Buckeye (T-2C with guns, rockets and bombs and no tailhook). During an air-combat training mission, my wingman engaged an A-7. I made an inverted high yo-yo for mutual support, at about 25,000 feet AGL. Suddenly, there was a huge explosion and all my instruments were covered with condensation.

I checked the engines and called, "Knock it off." The engines were good but I felt the cold and heard a loud noise. When I looked up I saw that I didn't have a canopy. I tried to talk with my copilot in the back seat but he didn't answer. For a moment, I thought that he had ejected.

My wingman heard my "knock it off" call, saw the canopy come off, and thought that I had ejected. He notified all the aircraft and joined with the A-7 to return to the base. Then he heard me call approach control asking for an immediate descent and emergency landing. He finally understood what was going on and asked my position. He quickly rendezvoused to assist in the emergency landing.

He radioed that the copilot was OK, but that he didn't have his helmet on and had his seat all the way down. Only my copilot's nose and eyes were above the canopy rail.

I learned a lot from this experience. The backseater thought he understood the T-2 ejection system and didn't go over the emergency procedures. After I lost the canopy I thought he might have ejected or pulled the emergency canopy jettison by mistake.

Remember, when you fly with pilots who are not familiar with your aircraft, be sure that you brief all the emergency escape options for a safe flight.

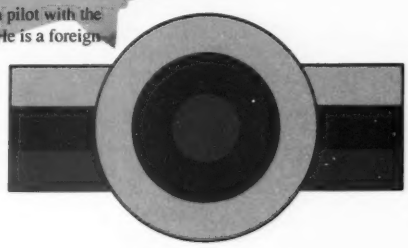
Call in the blind to notify your wingman and the other planes. My wingman was very confused and may have taken inappropriate action because he didn't understand what was going on. If he called base and notified them my plane was down, many people might have gone the wrong way. Remember, after you take control of the situation, call the other planes in the flight or in the area for help.

There was a lot of wind in the rear cockpit without the canopy; communication was impossible. In the training command, the IP in the back seat won't be able to take over for the student. Discuss this problem in the brief and assign action to take in the event of this emergency.

The safety investigation revealed that the canopy came off because of a malfunction in the microswitch that activates the canopy. The canopy light went off when the canopy was not fully down and locked. I checked the cabin pressure while climbing to 10,000 feet and it looked good. I didn't notice cabin-pressure fluctuations because the flight was very exciting.

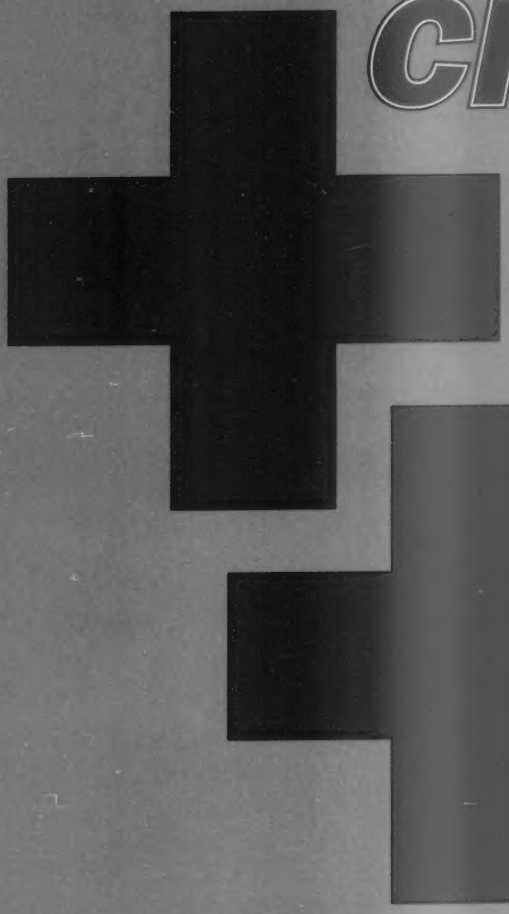
Remember, keep checking all your instruments. Each gauge is important for the mission. If I had checked the cabin pressure, I would have seen the fluctuation and taken corrective action. ◀

Capt. Lovera is a pilot with the Venezuela Air Force. He is a foreign exchange IP with VT-26.



Safety

Learn by Choice...



or accident!

Poster idea by AME-2 Plucker, VAQ 132